UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PANKAI K. JHA

Appeal 2007-0708
Application 09/881,367
Technology Center 2100

Decided: May 15, 2007

Before LEE E. BARRETT, JEAN R. HOMERE, and JAY P. LUCAS
Administrative Patent Judges.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from the Examiner's Final Rejection of claims 1 through 20. We have jurisdiction under 35 U.S.C. § 6(b) to decide this appeal.

Appellant invented a method and system for bridging an incoming packet from a first network (104) to a second network (106). Particularly, a

designated parameter of the incoming packet in the first network (104) is processed to produce another parameter for an outgoing packet for use in the second network (106). (Specification 6.)

Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A method of bridging an incoming packet from a first network to a second network, the method comprising the steps of:

(A) reading a pointer for a first parameter within said incoming packet;

(B) processing said first parameter in accordance with said pointer to produce a second parameter; and

(C) presenting an outgoing packet containing said second parameter for said second network.

In rejecting the claims on appeal, the Examiner relied upon the following prior art:

Ogawa	US 5,936,966 B1	Aug. 10, 1999
Wilford	US 6,687,247 B1	Feb. 3, 2004

The Examiner rejected the claims on appeal as follows:

A. Claims 1 through 8 and 10 through 17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Ogawa.

B. Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ogawa.

C. Claims 18 through 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Ogawa and Wilford.

First, Appellant contends[1] that Ogawa does not anticipate claims 1 through 8 and 10 through 17. Particularly, Appellant contends that Ogawa does not teach any of the limitations of the cited claims. (Br. 6-29; Reply Br. 5-8.) The Examiner, in contrast, contends that Ogawa teaches the limitations of the cited claims. (Answer 5-8.) The Examiner therefore concludes that Ogawa anticipates claims 1 through 8 and 10 through 17. (id.)

Second, Appellant contends that Ogawa does not render claim 9 unpatentable. (Br. 31.) Particularly, Appellant contends that the Examiner failed to establish a clear and particular showing of a teaching or motivation to modify Ogawa to make processing of the first parameter non-programmable. (Br. 31.) In response, the Examiner contends that it would have been obvious to combine Ogawa's teaching with knowledge of the prior art to yield the invention, as recited claim 9. (Answer 9.) The Examiner therefore concludes Ogawa renders claim 9 unpatentable. (Id.)

Third, Appellant contends that the combination of Ogawa and Wilford does not render claims 18 through 20 unpatentable. (Br. 32-35.) Particularly, Appellant contends that the Examiner failed to establish that the combination of Ogawa and Wilford teaches a means for processing a first parameter. (Id.) Further, Appellant contends that there is no motivation to combine the teachings of the cited references. (Id.) In response, the Examiner contends that the Ogawa-Wilford combination teaches the means

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[1] This decision considers only those arguments that Appellant submitted in the Appeal and Reply Briefs. Arguments that Appellant could have made but chose not to make in the Briefs are deemed to have been waived. *See* 37 C.F.R. § 41.37(c)(1) (vii)(eff. Sept. 13, 2004). *See also In re Watts*, 354 F.3d 1362, 1368, 69 USPQ2d 1453, 1458 (Fed. Cir. 2004).

for processing the parameters of the incoming frame. (Answer 9-12.) Therefore, it would have been obvious to combine the teachings of Ogawa and Wilford to yield the invention, as recited in claims 18 through 20. (Id.)

We affirm.

ISSUES

The *pivotal* issues in the appeal before us are as follows:

(1) Has Appellant shown that the Examiner failed to establish that Ogawa anticipates the claimed invention under 35 U.S.C. § 102(e), when Ogawa teaches a receiving circuit that processes an incoming network frame to produce an outgoing network frame to be used by an external circuit?

(2) Has Appellant shown that the Examiner failed to establish that one of ordinary skill in the art, at the time of the present invention, would have found that the disclosure of Ogawa in combination with knowledge of the prior art or the disclosure of Wilford renders the claimed invention unpatentable under 35 U.S.C. § 103(a)?

FINDINGS OF FACT

The following findings of fact are supported by a preponderance of the evidence.

The invention

1. Appellant invented a method and system for bridging an incoming packet from a first network (104) to a second network (106). (Specification 5.)

2. As depicted in Figure 2, the disclosed system[2] (100) includes an assembly (102), a first network (104), a second network (106), and one or more external circuits (108). (Id.)

3. Upon receiving an incoming packet, the first network (104) dispatches a receive signal[3] (RX1) via its interface (110) to a network interface (122), which in turn forwards the signal to a processing circuit (128) to process the parameters extracted[4] from the packet within the receive signal. (Id 7.)

4. After processing the extracted parameters of the packet, the processing circuit (128) frames outgoing parameters to generate a transmit signal TX2 (112) containing an outgoing packet, which it presents to the second network (104) via a network interface (124). (Id 9.)

The Prior Art Relied upon

5. Ogawa teaches a receiving device (e.g., bridge, router, gateway, multi-layer switch) that receives an incoming network frame along with its synchronizing signals, and simultaneously processes the parameters of the network frame to determine which protocol from a hierarchy of protocols is

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[2] Appellant's Specification indicates that the preferred embodiment of the invention can be implemented as a router, a gateway, a network bridge, a network switch, a concentrator or a multiplexer or any other assembly that interfaces among two or more networks. (Specification 5.)

[3] The signal RX1/TX1 may be implemented as one or more frames received/ transmitted from the first network. (Id 7.)

[4] A user generally presents a signal download to direct processing of the extracted parameters, which may include pointers, offset values and length values. (Id 8.)

the most suitable for carrying out the process indicated in the frame. (Title, Abstract, col. 1, ll. 13-22, col. 2, ll. 15-19.)

6. The receiving device examines header information[5] in the incoming frame to determine the process to be carried out, such as forwarding the frame to a designated destination address. (Col. 2, ll. 37-40 and ll. 57-64.)

7. As depicted in figures 1 and 2, the input frame data along with its synchronization data are fed into the input data control circuit (22) having a pipeline register (22A) and an encapsulation circuit (22B). (Col. 7, ll. 10-15.)

8. The input frame data passes through pipeline register (22A) and the encapsulation circuit (22B), which generates encapsulated data based on protocol identification code obtained from the protocol recognition circuit (26). (Col. 7, ll. 17-26.)

9. The input data is partially rewritten in the input control circuit (22) to produce an output frame data signal DO[6] for use by an external circuit (40) (Col. 7, ll. 15-26.)

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[5] Protocol information (parameters) in a header of the received frame is stored in a register having corresponding parameters. (Col. 8, ll. 16-21). Header in a received frame data includes parameters indicating the type of protocol, and the timing at which the parameter appears in the header. (Col. 11, ll. 58-62.) IP and TCP parameters include an offset/flag, an object pointer (col. 13, 53-54), header length (col. 10, l. 27) that extracted from the incoming frame.

[6] As depicted in figures 12 through 19, DO and SB reference characters designate an output frame data signal and a synchronizing signal which are continuously output when the protocol recognition circuit recognizes a protocol of the network layer. (Col. 12, ll.58-66.) The receiving circuit submits the parameters of the incoming frame to a counter process and a comparison process to produce parameters for an outgoing frame. (Col. 3, l. 48- col. 4, l. 11.)

10. The synchronizing signal is used to output a destination address for the received data to the external circuit (40), which may be a computer. (Col. 7, ll. 31-37.)

11. If the data receiving device is a bridge, the destination address of the received frame data is output to an external circuit (40), which may be on the other side of a firewall. (Col. 7, ll. 60-65, col. 8, ll. 14-22.)

PRINCIPLES OF LAW

1. ANTICIPATION

It is axiomatic that anticipation of a claim under § 102 can be found if the prior art reference discloses every element of the claim. *See In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984).

In rejecting claims under 35 U.S.C. § 102, a single prior art reference that discloses, either expressly or inherently, each limitation of a claim invalidates that claim by anticipation. *Perricone v. Medicis Pharmaceutical Corp.*, 432 F.3d 1368, 1375-76, 77 USPQ2d 1321, 1325-26 (Fed. Cir. 2005), citing *Minn. Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc.*, 976 F.2d 1559, 1565, 24 USPQ2d 1321, 1326 (Fed. Cir. 1992). Anticipation of a patent claim requires a finding that the claim at issue "reads on" a prior art reference. *Atlas Powder Co. v. IRECO, Inc.*, 190 F.3d 1342, 1346, 51 USPQ2d 1943, 1945 (Fed Cir. 1999) ("In other words, if granting patent protection on the disputed claim would allow the patentee to exclude the public from practicing the prior art, then that claim is anticipated, regardless

of whether it also covers subject matter not in the prior art.") (internal citations omitted).

2A. OBVIOUSNESS (Prima Facie)

The Supreme Court in *Graham v. John Deere*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966), stated that three factual inquiries underpin any determination of obviousness:

> Under § 103, (1) the scope and content of the prior art are to be determined; (2) differences between the prior art and the claims at issue are to be ascertained; and (3) the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy.

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). *See also In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int'l. v. Teleflex Inc.*, No. 04-1350, 2007 WL 1237837 at 13, 82 USPQ2d 1385, 1396 (Apr. 30, 2007) (*citing In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellant. *Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444. *See*

also Piasecki, 745 F.2d at 1472, 223 USPQ at 788. Thus, the Examiner must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the Examiner's conclusion.

2B. OBVIOUSNESS (Motivation)

On appeal, Appellant bears the burden of showing that the Examiner has not established a legally sufficient basis for combining the teachings of the references that the Examiner relied upon. Appellant may sustain this burden by showing that the Examiner failed to provide sufficient evidence to support that one having ordinary skill in the art would have combined disclosures of the references, as proposed by the Examiner, to yield Appellant's invention. *In re Kahn*, 441 F.3d at 987-88, 78 USPQ2d at 1336-37; *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick, Co.*, 464 F.3d 1356, 1360-1361, 80 USPQ2d 1641, 1645 (Fed. Cir. 2006). The mere fact that all the claimed elements or steps appear in the prior art is not *per se* sufficient to establish that it would have been obvious to combine those elements. *United States v. Adams*, 383 U.S. 39, 50-52, 148 USPQ 479 (1966); *Smith Industries Medical Systems, Inc. v. Vital Signs, Inc.*, 183 F.3d 1347, 1356, 51 USPQ2d 1415, 1420 (Fed. Cir. 1999). However, "[a]s long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor." *In re Beattie*, 974 F.2d 1309, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992). Motivation to combine references under 35 U.S.C. § 103 must come from a teaching or

suggestion within the prior art, within the nature of the problem to be solved, or within the general knowledge of a person of ordinary skill in the field of the invention, to look to particular sources, to select particular elements, and to combine them as combined by the inventor. *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 665, 57 USPQ2d 1161, 1167 (Fed. Cir. 2000) .

"[A]n implicit motivation to combine exists not only when a suggestion may be gleaned from the prior art as a whole, but when the 'improvement' is technology-independent and the combination of references results in a product or process that is more desirable, for example because it is stronger, cheaper, cleaner, faster, lighter, smaller, more durable, or more efficient . . . . In such situations, the proper question is whether the ordinary artisan possesses knowledge and skills rendering him *capable* of combining the prior art references." *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1368, 80 USPQ2d 1641, 1651 (Fed. Cir. 2006).

ANALYSIS

35 U.S.C. § 102(e) REJECTION

As set forth above, claim 1 requires (1) reading a pointer for a first parameter within an incoming packet, (2) processing the first parameter in accordance with the pointer to produce a second parameter, and (3) presenting an outgoing packet containing the second parameter for the second network. As detailed in the findings of fact section above, we have found that Ogawa teaches a receiving circuit (e.g., a bridge) for processing parameters including an offset/flag or an object pointer pertaining to an incoming frame. (Findings of fact 5 and 6.) We have also found that Ogawa

teaches processing the parameters of the incoming frame to determine which course of action to take, as well as to produce an outgoing frame for use by an external circuit. (Findings of fact 6 and 9.) Additionally, we have found that Ogawa teaches that the external circuit can be separated from the receiving circuit by a firewall. (Finding of fact 11.) In light of these findings, it is our view that Ogawa's teachings amount to reading and processing parameters of an incoming frame in a first network to produce an outgoing frame for use in a second network. It follows that the Examiner did not err in rejecting independent claim 1 as being anticipated by Ogawa.

As per claims 2 and 3, we have found that Ogawa teaches reading an incoming parameter to extract the length and offset of the parameter prior to processing the parameter. (Finding of fact 6, footnote 5.) It follows that the Examiner did not err in rejecting claims 2 and 3 as being anticipated by Ogawa.

As to claims 4 through 6, we have found that Ogawa teaches routing the extracted parameters of an incoming frame to an encapsulation circuit block and a data pipeline register block to process said parameters, as well as to produce parameters for an outgoing frame to be used by an external circuit, which may be separated from the receiving circuit by a firewall. (Findings of fact 7 through 11.) It follows that the Examiner did not err in rejecting claims 4 through 6 as being anticipated by Ogawa.

As to claim 7, we have found that Ogawa teaches at least two processes including a counter process and a comparison process during which the parameters of incoming frame are manipulated to produce parameters for an outgoing frame for use in the external circuit. (Finding of fact 9.)

As to claims 8 and 10 through 15, we have found that Ogawa teaches a receiving circuit for simultaneously processing the parameters of an incoming frame in a first network to identify a suitable protocol from among a plurality of protocols to produce parameters of an outgoing frame for use in external circuit, which can be separated from the receiving circuit by a firewall. (Findings of facts 5 through 11.) It follows that the Examiner did not err in rejecting claims 8 and 10 through 15 as being anticipated by Ogawa.

We have reviewed claims 16 and 17. We find that they are broader in scope than claims 1 through 8 and 10 through 15, as discussed above. We have also found that Ogawa teaches a circuit for executing the steps in the cited claims. (Findings of fact 5 through 11.) It follows that the Examiner did not err in rejecting claims 16 and 17 as being anticipated by Ogawa.

35 U.S.C. § 103(a) REJECTION

Now, we turn to the rejection of dependent claim 9 as being unpatentable over Ogawa. We note that claim 9 depends directly from claim 1. Thus, claim 9 also requires reading and processing parameters of an incoming frame in a first network to produce an outgoing frame for use in a second network. For the reasons set forth in the discussion of claim 1 in the preceding paragraph, we find that Ogawa teaches the cited limitations, as discussed above. Further, claim 9 requires that the processing of such incoming parameters be non-programmable. We find that there is no indication in Ogawa that the processing of the incoming parameters as performed by receiving circuit to be programmable. Absent such an indication, it would not be unreasonable to assert that Ogawa's disclosed

processing is non- programmable. Nonetheless, we agree with the Examiner that one of ordinary skill in the art would have readily recognized that programmable processing devices were well-known in the art to help increase the degree of freedom in circuit design. Therefore, the ordinarily skilled artisan would have been motivated to combine the teachings of Ogawa and knowledge of the prior art yield the invention as recited in claim 9. It follows that the Examiner did not err in rejecting claim 9 as being unpatentable over Ogawa.

As to claims 18 through 20, we have found that Ogawa teaches a receiving circuit including a pipeline register and an encapsulation circuit for processing the parameters of an incoming frame to produce parameters of an outgoing frame to be used by an external circuit. (Finding of fact 7 through 9). We nonetheless agree with the Examiner that Wilford teaches a plurality of peripheral devices for processing parameters of incoming packet. Therefore, the ordinarily skilled artisan would have been motivated to combine the teachings of Ogawa and Wilford to yield the invention as recited in claims 18 through 20. It follows that the Examiner did not err in rejecting claims 18 through 20 as being unpatentable over the combination of Ogawa and Wilford.

CONCLUSION OF LAW

On the record before us, Appellant has not shown that the Examiner failed to establish that Ogawa anticipates the claimed invention under 35 U.S.C. § 102(e). Further, Appellant has not shown that the Examiner failed to establish that one of ordinary skill in the art at the time of the present

invention, would have concluded that Ogawa, alone or in combination with Wilford, renders the claimed invention unpatentable under 35 U.S.C. § 103(a).

DECISION

We affirm the Examiner's decision to reject claims 1 through 8 and 10 through 17 under 35 U.S.C. § 102(e) as being anticipated by Ogawa. We also affirm the Examiner's decision to reject claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Ogawa. Additionally, we affirm the Examiner's decision to reject claims 18 through 20 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Ogawa and Wilford.

AFFIRMED

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CYPRESS SEMICONDUCTOR CORPORATION
198 CHAMPION COURT
SAN JOSE, CA 95134